

### Abstract

This invention relates to the field of biotechnology, particularly as it pertains to the production of sterols in a variety of host systems particularly plants. More specifically, the invention relates to nucleic acid molecules encoding proteins and fragments of proteins

5 associated with sterol and phytosterol synthesis and metabolism as well as the encoded proteins and fragments of proteins and antibodies capable of binding to them. The invention also relates to methods of using the nucleic acid molecules, fragments of the nucleic acid molecules, proteins, and fragments of proteins. The invention also relates to cells, organisms, plants, or seeds, or progeny of any, that have been manipulated to contain increased levels or overexpress  
10 at least one sterol or phytosterol compound.